

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Appellant:	<b>Spratt, Michael P.</b>	)	Examiner: Quynh H. NGUYEN
		)	
Serial No.:	<b>09/905,775</b>	)	Art Unit: 2614
		)	
Filed:	July 13, 2001	)	Our Ref: B-4242 618937-3
		)	30004657-3US
For:	"MESSAGE PASSING TO A	)	
	KNOWN LOCATION"	)	Date: August 17, 2007
		)	
		)	Re: <i>Appeal to the Board of Appeals</i>

**BRIEF ON APPEAL**

Commissioner for Patents

Sir:

This is an appeal from the non-final rejection dated February 22, 2007, for the above identified patent application. Appellant submits a petition for a one month extension of time pursuant to 37 C.F.R. 1.136(a) and the fee set forth in 37 C.F.R.1.17(a)(1) together with this Appeal Brief for which the Notice of Appeal was filed on May 17, 2007. The amount of \$500.00 for the fee set forth in 37 C.F.R. 1.17(c) for submitting this Brief was previously paid in connection with submitting the previous Appeal Brief on February 16, 2007 and Appellant requests that fee be applied to the present Appeal pursuant to 37 CFR 41.31 and 41.37.

**REAL PARTY IN INTEREST**

The real party in interest to the present application is Hewlett-Packard Development Company, LP, a limited partnership established under the laws of the State of Texas and having a principal place of business at 20555 S.H. 249 Houston, TX 77070, U.S.A. (hereinafter "HPDC"). HPDC is a Texas limited partnership and is a wholly-owned affiliate of Hewlett-Packard Company, a Delaware Corporation, headquartered in Palo Alto, CA. The general or managing partner of HPDC is HPQ Holdings, LLC.

### **RELATED APPEALS AND INTERFERENCES**

There are no other appeals or interferences related to the present application.

### **STATUS OF CLAIMS**

Claims 1 – 21 as reproduced in the accompanying appendix are pending in the application. Claims 1-5, 7, 10-18, 20 and 21 stand rejected and are the subject of this Appeal.

### **STATUS OF AMENDMENTS**

No Amendment After Final Rejection has been entered.

### **SUMMARY OF CLAIMED SUBJECT MATTER**

The invention described and claimed in the present application relates generally to passing a message, via mobile entities equipped with short range communication devices, to a target receiver at a known location (page 1, lines 5-6). Known solutions involve transmitting local information to passers-by equipped with mobile devices having short-range transceivers, which provides for diffusing information rapidly among the population of mobile-device users in a general vicinity of a source, but which is not the most efficient way for one mobile entity to pass a message to a particular target entity (page 2, lines 27-29). For passing a message to a target receiver at a known location, the invention provides for including in the message an indication of the location of the target receiver, determining if a passing-by mobile entity has a direction of travel that is appropriate to progress the message on its way to the target receiver and, if so, using the mobile entity to carry the message (page 3, lines 6-12).

Independent claim 1 recites: “A method of passing a message (for example K’s message in figure 3) to a target receiver at a known location (for example T in figure 3), wherein the message is physically carried towards the target receiver by one or more mobile entities (for example L, Q in figure 3) that receive and pass on the message by short-range communication (see for example page 6, lines 17-19), the message including an indication of the location of the target receiver (see for example page 5, lines 20-22), and at least one of the mobile entities is used to carry the message only following an immediately-prior determination (for example when K is being passed by a mobile device, see page 7, line 29 to page 8, line 1) that its direction of

travel is appropriate to physically carry the message in a direction that progresses the message on its way to the target receiver” (see for example page 5, lines 13-15).

Independent claim 17 recites: “A method of passing a message (for example K’s message in figure 3) to a target receiver at a known location (for example T in figure 3), wherein the message is physically carried towards the target receiver by one or more mobile entities (for example L, Q in figure 3) that receive and pass on the message by short-range communication (see for example page 6, lines 17-19), the message including an indication of the location of the target receiver (see for example page 5, lines 20-22), and at least one of the mobile entities knowing at least its approximate location and direction of travel and being used to carry the message only upon the entity being determined to be currently traveling in a direction appropriate to physically carry the message in a direction that progresses the message towards the target” (see for example page 6, lines 1-5).

Independent claim 18 recites an “Apparatus for passing a message to a mobile entity traveling in a direction appropriate to progress the message on its way to a target receiver the location of which is indicated in the message, (see for example page 5, lines 13-15) the apparatus comprising:

- a short-range transceiver capable of determining the presence nearby of said mobile entity and of exchanging data with it (see for example page 4, lines 7-13);
- a location discovery arrangement by which the apparatus can know its location (see for example page 4, lines 21-24);
- a memory for holding the message (see for example page 4, lines 14-16); and
- a send control subsystem for enabling the passing of the message, via the short-range transceiver, to said mobile entity only upon determining that the current direction of travel of the mobile entity, as indicated by direction data received from the mobile entity, is appropriate to physically carry the message in a direction that progresses the message on its way to the target receiver” (see for example page 8, lines 9-19).

Independent claim 20 recites “A mobile entity for receiving a message, and storing it for carriage, when traveling in a direction appropriate to progress the message on its way to a target receiver the location of which is indicated in the message (see for example page 5, lines 30-32), the apparatus comprising:

-a short-range transceiver capable of determining the presence nearby of apparatus holding the message, and of exchanging data with the apparatus (see for example page 4, lines 7-13);

-a direction-of-travel discovery arrangement by which the mobile entity can determine at least its general direction of travel (see for example page 6, lines 1-5);

-a memory for storing the message (see for example page 4, lines 14-16); and

-a receive control subsystem for enabling the storage for carriage of said message, only upon determining that the direction of travel of the mobile entity, is appropriate to progress the message on its way to the target receiver as indicated by direction data received from the apparatus via the short-range subsystem” (see for example figure 3 and page 8, lines 24-28).

Independent claim 21 recites “A mobile entity for receiving a message, and storing it for carriage (see for example page 5, lines 30-32), when traveling in a direction appropriate to progress the message on its way to a target receiver the location of which is indicated in the message (see for example page 5, lines 13-20), the apparatus comprising:

-a short-range transceiver capable of determining the presence nearby of apparatus holding the message, and of exchanging data with the apparatus (see for example page 4, lines 7-13);

-a location and direction-of-travel discovery arrangement by which the mobile entity can determine at least its general location and direction of travel (see for example page 4, lines 21-24);

-a memory for storing the message (see for example page 4, lines 14-16); and

-a receive control subsystem for enabling the storage for carriage of said message, only upon determining that the current direction of travel of the mobile entity, is appropriate to physically carry the message in a direction that progresses the message on its way to the target receiver as indicated by a reference direction determined by the mobile entities current location and a location passed to it from the apparatus via the short-range subsystem” (see for example figure 3 and page 8, lines 24-28).

### **GROUND OF REJECTION TO BE REVIEWED ON APPEAL**

- Issue 1: Whether claim 1 is unpatentable under 35 U.S.C. 112, first paragraph.
- Issue 2: Whether claims 1-3 and 17 are unpatentable under 35 U.S.C. 103(a) in view of U.S. Pat. No. 6,246,883 to Lee (hereinafter "Lee").
- Issue 3: Whether claims 4-5, 7 and 10-16 are unpatentable under 35 U.S.C. 103(a) over Lee in view of U.S. Pat. No. 5,987,011 to Toh (hereinafter "Toh").
- Issue 4: Whether claims 18 and 20-21 are unpatentable under 35 U.S.C. 103(a) over Lee in view of Toh and further in view of U.S. Pat. No. 6,704,283 to Stiller et al. (hereinafter "Stiller").

### **ARGUMENT**

#### **Issue 1: Whether claim 1 is unpatentable under 35 U.S.C. 112, first paragraph.**

In Section 4 of the final Office Action of February 22, 2007, the Examiner rejects claim 1 as lacking support in the specification for the limitation "... only following an immediately-prior determination..." Appellant submits that this limitation is supported by the specification at page 8, lines 9-13, and respectfully requests that this rejection be overturned on appeal.

#### **Issue 2: Whether claims 1-3 and 17 are unpatentable under 35 U.S.C. 103(a) in view of U.S. Pat. No. 6,246,883 to Lee (hereinafter "Lee").**

In section 5 of the final Action the Examiner once again rejects claims 1-3 and 17 under 35 U.S.C. 102(e), this time asserting that they are anticipated by Lee. In particular the Examiner finds that, with regard to claim 1, Lee discloses most limitations but readily acknowledges that Lee does not disclose, at the very least, that a mobile entity "is used to carry the message only following an immediately-prior determination that its direction of travel is appropriate physically to carry the message in a direction that progresses the message on its way to the target receiver." However, quite incredibly, the Examiner expediently sidesteps this glaring shortcoming of Lee by conveniently announcing that it would have been obvious to the skilled person to incorporate this feature into the teachings of Lee "for the purpose of having a more efficient system when mobile entities travel to certain heavy congested geographic areas." The Examiner attempts to shore up this motivation plucked out of thin air by offering that "[f]or example, it may be

advantageous for mobile base stations to obtain meter readings and other data from users along the route in heavy congested areas where mobile entities or buses for obtaining gas meter readings for users' houses in common boundary between cities or counties, or buses traveling along the route that belong to different companies." The Examiner concludes this fantasy by self-righteously noting that "[i]t is necessary for the mobile entity traveling in direction following a determination that the direction of travel is appropriate to the target receiver."

As the learned members of the Board undoubtedly have concluded by now, there are very many things wrong with this rejection, and Appellant begs for their patience as he dissects each and every one of these shortcomings.

Appellant will start with the statutory requirements that the Examiner appears to have wholly ignored in this Action. "To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings." MPEP §2142. Furthermore, "rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some *rational underpinning* to support the legal conclusion of obviousness." *In re Leonard Kahn*, 04-1616, \*p. 15 (Fed. Cir., March 22, 2006) [emphasis added]. The Examiner has set forth not the slightest hint of such motivation, real or otherwise, on the face of the Lee reference nor has he invoked the general knowledge of those skilled in the art, but rather merely applied Appellant's invention to the teachings of Lee and identified doing so would improve upon the method of Lee. To merely state the benefit conferred by the invention is not setting forth the required showing of motivation but rather merely applying the benefit of hindsight to its fullest with the benefit of the invention itself as an explicit roadmap.

"Second, there must be a reasonable expectation of success... The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure." MPEP §2142. The Examiner has offered not one single detail as to how exactly the skilled person would go about "incorporating" Appellant's invention into the system of Lee. In fact, a modicum of thought would quickly inform one that attempting to do so would be utterly senseless. After all, Lee discloses a method

wherein a wireless base station travels to a *particular* geographical area to transmit data to a terminal located in that area. Thus in Lee, it is already established that the mobile entity will be going to carry the messages it's carrying to a certain area because it is going to that particular area specifically for the purpose of doing precisely that (i.e. delivering those message to a terminal in that particular area). The entire *raison d'être* of Lee is to send a mobile entity to a specific area to deliver a particular message to a specific terminal in that area. Why would any skilled person implementing this method think that it would be advantageous to check the direction of travel of the mobile entity when it is already well established where it is going and what messages it will carry for which terminals that are located there? Appellant respectfully submits that the Examiner's obvious addition to Lee would in fact never occur to a skilled person because it would be completely and utterly pointless.

"Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations." MPEP §2142. The Examiner has clearly acknowledged that Lee does not teach all claimed limitations. Under the clear statutory requirements as set forth in the MPEP, the Examiner's rejection unequivocally faulty.

In view of the above, Appellant respectfully submits that the present rejection of claims 1-3 and 17 is *ab initio* incomplete and improper and requests that the Examiner be overturned on appeal and these claims passed to issue.

**Issue 3: Whether claims 4-5, 7 and 10-16 are unpatentable under 35 U.S.C. 103(a) over Lee in view of U.S. Pat. No. 5,987,011 to Toh (hereinafter "Toh").**

In section 6 of the final Action the Examiner rejects claims 4-5, 7 and 10-16 under 35 U.S.C. 103(a) over Lee in view of Toh. Claims 4-5, 7 and 10-16 depend from claim 1. "If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious." *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Therefore, in light of the above discussion of claim 1, Appellant submits that claims 4-5, 7 and 10-16 are also allowable at least based on their dependency and respectfully requests that these claims be passed to issue.

**Issue 4: Whether claims 18 and 20-21 are unpatentable under 35 U.S.C. 103(a) over Lee in view of Toh and further in view of U.S. Pat. No. 6,704,283 to Stiller et al. (hereinafter “Stiller”).**

In section 7 of the final Action the Examiner rejects claims 18 and 20-21 under 35 U.S.C. 103(a) over Lee in view of Toh and further in view of Stiller “for the same reasons as discussed in claims 1 and 11.” Appellant respectfully submits that these claims are in fact allowable for the same reasons discussed above with respect to claim 1, and respectfully requests that claims 18 and 20-21 be passed to issue as well.

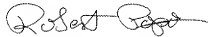
**CONCLUSION**

In view of all of the preceding, Appellant respectfully submits that all pending claims are novel and nonobvious over the art on record and that the Examiner’s rejection is not supported by the art, and thus request that the rejection of all claims be overturned on appeal and the case be passed to allowance. Appellant further respectfully requests a speedy consideration of this case as the period of protection accorded to Appellant has already been substantially reduced by the Examiner’s continued insistence to reject this application irrespective of the actual patentability of the claims.

I hereby certify that this document is being transmitted to the  
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August 17, 2007  
(Date of Transmission)

Respectfully submitted,



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Attachments



## Claims

1. A method of passing a message to a target receiver at a known location, wherein the message is physically carried towards the target receiver by one or more mobile entities that receive and pass on the message by short-range communication, the message including an indication of the location of the target receiver, and at least one of the mobile entities is used to carry the message only following an immediately-prior determination that its direction of travel is appropriate to physically carry the message in a direction that progresses the message on its way to the target receiver.
2. A method according to claim 1, wherein a said at least one mobile entity is determined to be traveling in an appropriate direction upon this direction approximating to the direction towards the target receiver.
3. A method according to claim 1, wherein a said at least one mobile entity is determined to be traveling in an appropriate direction upon this direction taking it along a map route in a direction reducing the route distance to the target receiver.
4. A method according to claim 1, wherein a said at least one mobile entity is determined to be traveling in an appropriate direction upon this direction approximating to the direction towards an intermediate location predetermined as being one where the message is at least likely to encounter another mobile entity, or other means, for progressing the message towards the target receiver
5. A method according to claim 1, wherein said determination is effected by an entity already holding the message.
6. A method according to claim 5, wherein the message-holding entity effects said determination by the steps of:
  - receiving, from the nearby said at least one of the mobile entities, the latter's direction of travel;
  - deriving, as a reference direction, the direction from its own location to that of the target

receiver or of an intermediate location predetermined as being one where the message is at least likely to encounter another mobile entity, or other means, for progressing the message towards the target receiver; and

- comparing the said direction of travel of the nearby mobile entity with the reference direction and determining that the nearby mobile entity is appropriate to carry to the message only upon the compared directions being within a predetermined angular range of each other.

7. A method according to claim 1, wherein said determination is effected by the concerned said at least one of the mobile entities.

8. A method according to claim 7, wherein the concerned said at least one of the mobile entities effects said determination by the steps of:

- receiving a reference direction from the entity already holding the message, this reference direction being the direction from the location of the message-holding entity to that of the target receiver or of an intermediate location predetermined as being one where the message is at least likely to encounter another mobile entity, or other means, for progressing the message towards the target receiver; and

- comparing the said direction of travel of said at least one of the mobile entities with the reference direction and determining that it is appropriate to carry to the message only upon the compared directions being within a predetermined angular range of each other.

9. A method according to claim 7, wherein the concerned said at least one of the mobile entities effects said determination by the steps of:

- receiving, from the entity already holding the message, the location of the target receiver or of an intermediate location predetermined as being one where the message is at least likely to encounter another mobile entity, or other means, for progressing the message towards the target receiver;

- deriving, as a reference direction, the direction from its current location to the received location; and

- comparing its direction of travel with the reference direction and determining that it is appropriate to carry to the message only upon the compared directions being within a

predetermined angular range of each other.

10. A method according to claim 1, wherein a said at least one mobile entity, when carrying the message, seeks to pass on the message to another mobile entity upon its direction of travel no longer being appropriate to progress the message on its way to the target receiver.

11. A method according to claim 1, wherein a said at least one mobile entity, when carrying the message, opportunistically passes the message to another mobile entity that is traveling in a direction more closely aligned to one appropriate to progress the message on its way to the target receiver.

12. A method according to claim 1, wherein a said at least one mobile entity, when carrying the message, opportunistically passes the message to another mobile entity that is traveling, at a substantially greater speed than the current message-carrying entity, in a direction appropriate to progress the message on its way to the target receiver.

13. A method according to claim 1, wherein a said at least one mobile entity, when passing on the message, seeks to pass the message to multiple other mobile entities traveling in respective directions appropriate to progress the message on its way to the target.

14. A method according to claim 1, wherein a said at least one mobile entity, when passing on the message, is informed by the message-receiving mobile entity as to whether the latter has accepted to carry the message.

15. A method according to claim 1, wherein the message is routed through a communications infrastructure to a short-range transmitter close or closest to the target receiver and the latter then passes the message to a said at least one mobile entity.

16. A method according to claim 15, wherein the message is passed from an originating entity to the communications infrastructure via one or more mobile entities that are used to carry the message regardless of their direction of travel.

17. A method of passing a message to a target receiver at a known location, wherein the message is physically carried towards the target receiver by one or more mobile entities that receive and pass on the message by short-range communication, the message including an indication of the location of the target receiver, and at least one of the mobile entities knowing at least its approximate location and direction of travel and being used to carry the message only upon the entity being determined to be currently traveling in a direction appropriate to physically carry the message in a direction that progresses the message towards the target.

18. Apparatus for passing a message to a mobile entity traveling in a direction appropriate to progress the message on its way to a target receiver the location of which is indicated in the message, the apparatus comprising:

- a short-range transceiver capable of determining the presence nearby of said mobile entity and of exchanging data with it;

- a location discovery arrangement by which the apparatus can know its location;

- a memory for holding the message; and

- a send control subsystem for enabling the passing of the message, via the short-range transceiver, to said mobile entity only upon determining that the current direction of travel of the mobile entity, as indicated by direction data received from the mobile entity, is appropriate to physically carry the message in a direction that progresses the message on its way to the target receiver.

19. Apparatus according to claim 18, wherein the send control subsystem comprises:

- a direction-derivation arrangement for deriving, as a reference direction, the direction from its own location as indicated by said location discovery means, to that of the target receiver or of an intermediate location predetermined as being one where the message is at least likely to encounter another mobile entity, or other means, for progressing the message towards the target receiver; and

- a comparison arrangement for comparing the direction of travel of the nearby mobile entity with the reference direction and determining that the nearby mobile entity is appropriate to carry to the message only upon the compared directions being within a predetermined angular range of each other.

20. A mobile entity for receiving a message, and storing it for carriage, when traveling in a direction appropriate to progress the message on its way to a target receiver the location of which is indicated in the message, the apparatus comprising:

- a short-range transceiver capable of determining the presence nearby of apparatus holding the message, and of exchanging data with the apparatus;
- a direction-of-travel discovery arrangement by which the mobile entity can determine at least its general direction of travel;
- a memory for storing the message; and
- a receive control subsystem for enabling the storage for carriage of said message, only upon determining that the direction of travel of the mobile entity, is appropriate to progress the message on its way to the target receiver as indicated by direction data received from the apparatus via the short-range subsystem.

21. A mobile entity for receiving a message, and storing it for carriage, when traveling in a direction appropriate to progress the message on its way to a target receiver the location of which is indicated in the message, the apparatus comprising:

- a short-range transceiver capable of determining the presence nearby of apparatus holding the message, and of exchanging data with the apparatus;
- a location and direction-of-travel discovery arrangement by which the mobile entity can determine at least its general location and direction of travel;
- a memory for storing the message; and
- a receive control subsystem for enabling the storage for carriage of said message, only upon determining that the current direction of travel of the mobile entity, is appropriate to physically carry the message in a direction that progresses the message on its way to the target receiver as indicated by a reference direction determined by the mobile entities current location and a location passed to it from the apparatus via the short-range subsystem.

There is no evidence submitted with the present Brief on Appeal.

There are no other appeals or interferences related to the present application.